

could cause businesses to site in another locality, resulting in local loss of jobs and revenue. On the other hand, maintaining existing water quality may have a positive influence on revenues derived from water-based tourism.

(5) Source of revenue to be used for implementation and enforcement of administrative regulation: The source of revenue will be the General Fund and federal funds, as appropriated by the Kentucky General Assembly.

(6) To the extent available from the public comments received, economic impact, including effects of economic activities arising from administrative regulation, on:

(a) Geographical area in which administration regulation will be implemented: No comments received.

(b) Kentucky: No comments received.

(7) Assessment of alternative methods; reasons why alternatives were rejected: Alternatives for mixing zones and zones of initial dilution ranged from prohibiting all mixing zones and zones of initial dilution to making no changes to the existing regulation. Since mixing zones and zones of initial dilution are allowed by federal regulations, the alternative to prohibiting them was rejected. The cabinet believes that clarification of the mixing zone and zones of initial dilution provisions is necessary to provide better guidance to dischargers. The alternative to not allowing zones of initial dilution in exceptional waters was to allow zones of initial dilution in these waters. That alternative was rejected because the cabinet determined that these waters deserved a higher level of protection. Mixing zones, however, are allowed in these waters according to provisions in this amended administrative regulation.

(8) Assessment of expected benefits of the administrative regulation: The quality of lakes, reservoirs and exceptional waters will be protected, consequently aquatic biodiversity and water-based recreational values will be maintained.

(a) Identify effects on public health and environmental welfare of the geographical area in which implemented and on Kentucky: This amended administrative regulation ensures protection of streams, rivers, and publicly-owned lakes and reservoirs for recreation, fishing, drinking water, and biological communities inhabiting the lakes. Through limiting the size of mixing zones and zones of initial dilution, and by not allowing zones of initial dilution in exceptional waters this amended administrative regulation limits the discharge of waste waters.

(b) State whether a detrimental effect on environment and public health would result if not implemented: There would be a detrimental effect on the environment if this amended administrative regulation is not implemented.

(c) If detrimental effect would result, explain detrimental effect: Without this amended administrative regulation, drinking water treatment may have to be upgraded for some systems. Water-based recreation may be affected, and aquatic organisms sensitive to pollution may be impacted.

(9) Identify any statute, administrative regulation or government policy which may be in conflict, overlapping, or duplication: No statutes, administrative regulations or government policies are in conflict, overlap, or duplicate this amended administrative regulation.

(a) Necessity of proposed administrative regulation if in conflict: The administrative regulation is not in conflict.

(b) If in conflict, was effort made to harmonize the proposed administration regulation with conflicting provisions: The administrative regulation is not in conflict.

(10) Any additional information or comments: State water quality standards are required by federal law to be reviewed for possible changes at least every 3 years.

(11) TIERING: Is tiering applied? No. The amended administrative regulation affects all discharges into surface waters of the Commonwealth, irrespective of ownership, capacity, processes, or treatment used. There are discharge restrictions, however, on certain waters.

FEDERAL MANDATE ANALYSIS COMPARISON

1. Federal statute or regulation constituting the federal mandate. There is no federal statute or regulation mandating that Kentucky implement a water pollution control program. For Kentucky to main-

tain its delegation over the NPDES permit program, however, the Clean Water Act requires that Kentucky review its water quality standards every three years and comply with the programmatic requirements of 40 CFR Part 131, including the requirement for an antidegradation policy. The federal regulations require the adoption of an antidegradation policy for delegated states and permit the adoption of certain general policies such as mixing zones. The U.S. Environmental Protection Agency does provide guidance to the states, but individual decisions concerning the states water quality programs are left to the states.

2. State compliance standards. 401 KAR 5:002, 5:026, 5:029, 5:030, and 5:031, the water quality standards regulations.

3. Minimum or uniform standards contained in the federal mandate. The Clean Water Act requires designated uses, criteria, standards and antidegradation policies in water quality standards.

4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate? No

5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements. There is no stricter standard or additional or different responsibilities or requirements.

FISCAL NOTE ON LOCAL GOVERNMENT

1. Does this administrative regulation relate to any aspect of a local government, including any service provided by that local government? Yes

2. State what unit, part or division of local government this administrative regulation will affect. This amended administrative regulation may affect the wastewater treatment divisions of local government if they will have new or expanded discharges.

3. State the aspect or service of local government to which this administrative regulation relates. This amended administrative regulation relates to local governments' waste water treatment service.

4. Estimate the effect of this administrative regulation on the expenditures and revenues of a local government for the first full year the administrative regulation is to be in effect. If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-): Cannot be determined.

Expenditures (+/-): Cannot be determined.

Other explanation: Waste water treatment costs may increase for those local governments that will have new or expanded discharges into streams, rivers, and publicly-owned lakes and reservoirs. On the other hand, local governments withdrawing drinking water from these waters may have lower treatment costs, because these waters should have lower pollutant loads.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET Department for Environmental Protection Division of Water (Amended After Hearing)

401 KAR 5:030. Antidegradation [Nondegradation] policy implementation methodology.

RELATES TO: KRS 146.200 to 146.360, 146.410 to 146.990, 224.01-100, 224.01-400, 224.16-050, 224.16-070, 224.40, 224.43, 224.46, 224.50, 224.60, 224.70, 224.71, 224.73 [Chapter 224]

STATUTORY AUTHORITY: KRS 146.200 to 146.360, 146.410 to 146.990, 224.10-100, 224.16-050, 224.16-060, 224.70-110, 40 CFR Part 131, 16 USC 1271 et seq., 1531 et seq., 33 USC 1311, 1313, 1314, 1316, 1341, 1342

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to develop and conduct a comprehensive program for the management of water resources and to provide for the prevention, abatement, and control of all water pollution. KRS 224.70-100 declares that the policy of the Commonwealth is to conserve its waters for legitimate

uses and lists among the purposes of KRS Chapter 224: safeguarding from pollution the uncontaminated waters of the Commonwealth, preventing the creation of any new pollution in the waters of the Commonwealth, and abating any existing pollution. This administrative regulation and 401 KAR 5:002, 5:026, 5:029, and 5:031 will operate to protect the surface waters of the Commonwealth, and thus protect water resources. This administrative regulation sets forth a methodology to implement the antidegradation [nondegradation] policy contained in 401 KAR 5:029 by establishing procedures to control water pollution in waters affected by that policy.

Section 1. Implementation of Antidegradation [Nondegradation] Policy. The following procedures shall govern implementation of the antidegradation [nondegradation] policy of 401 KAR 5:029, Section 1, for a point source discharge [2].

(1) Surface waters shall be placed into one (1) of three (3) categories: outstanding national resource waters, exceptional waters [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water], or use protected waters.

(2) Categorization of surface waters to outstanding national resource waters. The following procedures shall govern the categorization of surface waters to outstanding national resource waters.

(a) A surface water shall meet, at a minimum, the requirements for outstanding state resource water classification found in 401 KAR 5:031, Section 7; and [-]

(b) The water shall be demonstrated to be of national ecological or recreational significance.

(3) Categorization of surface water to exceptional waters [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water]. Waterbodies in this category shall include [any of] the following:

(a) Surface waters designated as Kentucky Wild Rivers, unless they are categorized as outstanding national resource waters;

(b) Outstanding state resource waters other than those that support federally threatened or endangered aquatic species;

(c) [Automatic inclusion shall be provided to] Surface waters that fully support all applicable designated uses and that contain fish communities that are rated "excellent" by the use of the Index of Biotic Integrity, which is in "Methods for [of] Assessing Biological Integrity of Surface Waters", incorporated by reference in Section 4 of this administrative regulation; or macroinvertebrate communities that are rated "excellent" by the use of the Macroinvertebrate Bioassessment Index, which is in "A Macroinvertebrate Bioassessment Index for Streams of the Interior Plateau Ecoregion in Kentucky", incorporated by reference in Section 4 of this administrative regulation; and

(d) Waters in the cabinet's reference reach network.

(4) Procedure for implementing the antidegradation [nondegradation] policy in outstanding national resource waters [for point source discharges].

(a) Water quality shall be maintained and protected in outstanding national resource waters.

(b) The cabinet may approve temporary or short-term changes in water quality if the changes to the waters in question have no demonstrable impact on the ability of the waters to support their designated uses.

(5) Procedure for implementing the antidegradation [nondegradation] policy in exceptional waters [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water for point source discharges].

(a) On or after the effective date of this administrative regulation [Applicants for a new unpermitted and expanded discharge shall conduct an alternatives analysis as contained in subsection (8) of this section:

(b)] a KPDES permit for an [a new] unpermitted or expanded discharge shall contain effluent limitations for the entire effluent that are as follows:

1. Domestic discharges shall have an effluent quality of no greater than ten (10) mg/l five (5) day carbonaceous biochemical oxygen demand, two (2) mg/l ammonia-nitrogen, 0.010 mg/l total residual chlorine, ten (10) mg/l total suspended solids, one (1) mg/l total phosphorus, a minimum seven (7) mg/l dissolved oxygen, a chronic whole effluent toxicity limit unless an acute whole effluent toxicity limit is

more stringent, and a geometric mean value for fecal coliform bacteria not to exceed 200 colonies per 100 milliliters during a period of thirty (30) consecutive days nor 400 colonies per 100 milliliters during a period of seven (7) consecutive days, and the discharge shall not cause the average instream dissolved oxygen concentration to be less than six and zero-tenths (6.0) mg/l.

2. Chloride limits shall be based on the domestic water supply criterion of 250 mg/l.

3. Stormwater discharges shall be [are] exempt from antidegradation [nondegradation] implementation procedures for exceptional waters [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water], but shall be [are] subject to control by existing cabinet programs.

4. Chronic whole effluent toxicity limits shall apply unless an acute whole effluent toxicity limit is more stringent.

5. [Carcinogenic pollutants shall be limited as in use protected waters:

6-] All other waste discharges shall be restricted to no more than one-half (1/2) of the limitation that would have been permitted for use protected waters at standard design conditions.

6. [7-] KPDES permit renewals that result in less than a twenty (20) percent [no] increase in pollutant loading are exempt from implementation procedures for exceptional waters and shall be regulated by the requirements in subsections (6)(a) and (b) of this administrative regulation [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water].

(b) [(c)] [(b)] If the permit applicant determines that it can meet limits required by paragraph (a) [(b)] of this subsection [these limitations], the KPDES permit shall be issued with these limitations without further antidegradation [nondegradation] review as described in subsection (6) of this section for use protected waters. If a KPDES permit applicant cannot meet those effluent limitations the applicant may request a less stringent limitation. In making this request, the applicant shall demonstrate to the satisfaction of the cabinet that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located following the guidelines in "Interim Economic Guidance for Water Quality Standards Workbook, (EPA, March 1995)" incorporated by reference in Section 4 of this administrative regulation and include an alternatives analysis that shall consider the following:

1. Discharge to other treatment facilities;

2. Use of other discharge locations;

3. Water reuse or recycle;

4. Process and treatment alternatives; and

5. On-site or subsurface disposal. [-]

1. The applicant has conducted a thorough alternative or enhanced treatment analysis that investigated other alternative or enhanced treatment options that were available, technically feasible, and cost-effective, including alternate discharge locations that would eliminate the need for less stringent limitations; and

2. The applicant has conducted a thorough pollution prevention alternatives analysis that investigated any cost-effective pollution prevention alternatives and techniques that were available that would eliminate the need for less stringent limitations or significantly reduce the extent of the less stringent limitations;

3. If the applicant satisfies the requirements of subparagraphs 1 and 2 of this paragraph, the applicant may then be permitted a less stringent level of treatment.] In allowing the resultant lowering of water quality, the cabinet shall assure water quality necessary to fully protect existing uses.

(c) [(d)] [(e)] [New] Zones of initial dilution are prohibited in these waters unless assigned before the effective date of this administrative regulation.

(6) Procedure for implementing the antidegradation [nondegradation] policy in use protected waters for point source discharges. All surface waters not categorized [listed in Section 3 of this administrative regulation] as outstanding national resource waters or exceptional waters [waterbodies whose quality exceeds that necessary to support fish, shellfish, and wildlife and recreation in and on the water] shall be categorized as use protected waters.

(a) All existing uses shall be protected and the level of water qual-

ity necessary to protect these uses shall be assured in these surface waters.

(b) The process to allow discharges to these surface waters and to assure their protection is regulated by the requirements in the Kentucky Pollution Discharge Elimination System Program.

(c) On or after the effective date of this administrative regulation, an applicant for an [a new] unpermitted or expanded discharge shall conduct a socioeconomic demonstration, including an alternatives analysis that shall demonstrate to the cabinet the necessity to lower water quality and shall consider: [as contained in subsection (8) of this section:]

1. The effect of the facility on an existing environmental or public health problem;

2. The increase or avoidance of a decrease in employment;

3. The increase in production level;

4. An increase in efficiency;

5. Industrial, commercial, or residential growth;

6. Any other economic or social benefit to the community;

7. Discharge to other treatment facilities;

8. Use of other discharge locations;

9. Water reuse or recycle;

10. Process and treatment alternatives; and

11. On-site or sub-surface disposal.

(d) KPDES permit renewals that result in less than a twenty (20) percent increase in pollutant loading are exempt from implementation procedures of paragraph (c) of this subsection.

(7) These procedures shall not preempt the power or authority of a local government to provide by ordinance for a higher level of protection through antidegradation [nondegradation] implementation, for dischargers located within that local government's jurisdiction to surface waters of the Commonwealth.

[(8) An applicant for a new unpermitted or expanded point source discharge shall conduct an alternatives analysis that shall consider:

(a) Discharge to other treatment facilities;

(b) Use of other discharge locations;

(c) Water reuse or recycle;

(d) Process and treatment alternatives; and

(e) On-site or subsurface disposal.]

Section 2. Procedures for Recategorizing Waters. This section shall apply to the recategorization of surface waters to outstanding national resource waters and exceptional waters [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water]. The redesignation [reclassification] of waters to outstanding state resource waters shall be governed by the procedures in 401 KAR 5:026.

(1) The cabinet may propose to recategorize certain waters to outstanding national resource waters and exceptional waters. [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.]

(a) If the cabinet proposes to recategorize these waters, it shall provide notice and an opportunity for public hearing.

(b) The cabinet shall provide the documentation for those surface waters it proposes to recategorize.

(2) A [Any] person may request recategorization of a surface water to an outstanding national resource water or exceptional water [a waterbody whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water] by filing a petition with the cabinet.

(a) The petition shall include the name and address of the petitioner and the information and documentation necessary to recategorize the particular water as required by subsection (4) of this section;

(b) The petitioner shall have the burden of proof that the recategorization is appropriate.

(c) The cabinet shall provide notice of the petition and an opportunity for a public hearing.

(d) The cabinet shall review the petition, supporting documentation, and any comments received from the public to determine if the proposed waters qualify for recategorization.

(e) The cabinet shall document the determination to grant or deny recategorization as a result of a petition, and shall provide a copy of the decision to the petitioner and other interested parties.

(3) If a water is to be recategorized the cabinet shall publish notice of the recategorization. Any permit issued after the date of publication shall be issued with limitations based on the new category. When the cabinet reviews its water quality standards pursuant to the provisions of Section 303 of the Clean Water Act, the cabinet shall propose to have all recategorized waters promulgated as an amendment to this administrative regulation.

(4) The following information, documentation, and data shall [are required to] support a petition for recategorization:

(a) To support a petition for outstanding national resource waters:

1. A United States Geological Survey 7.5 minute topographic map or its equivalent as approved by the cabinet showing those surface waters to be recategorized, with a description consisting of a river mile index with any existing and proposed discharge points;

2. Existing uses and water quality data for the surface waters for which the recategorization is proposed. If adequate data are unavailable, additional studies may be required by the cabinet;

3. Descriptions of general land uses, [e.g., mining, agricultural, recreation, low, medium, and high density residential, commercial, industrial, etc.] and specific land uses adjacent to the surface waters for which the recategorization is proposed;

4. The existing and designated uses of the waters upstream and downstream of the proposed recategorized waters;

5. General physical characteristics of the surface water including, but not limited to width, depth, bottom composition, and slope;

6. The frequency of occasions when there is no natural flow in the surface water, and the $7Q_{10}$ and harmonic mean flow values for the surface water and adjacent surface waters;

7. An assessment of the existing and potential aquatic life habitat in the surface waters under consideration and the adjacent upstream surface waters. The existing aquatic life shall be documented including the occurrence of individuals or populations, indices of diversity and well-being, and abundance of species of any unique native biota;

8. A documented rationale as to why the waters qualify for the recategorization; and

9. The rationale used to support the national significance of the water.

(b) To support a petition for exceptional waters [waterbodies whose quality exceeds that necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water]:

1. A United States Geological Survey 7.5 minute topographic map or its equivalent as approved by the cabinet showing the surface waters to be recategorized, with a description consisting of a river mile index with [any] existing and proposed discharge points;

2. Descriptions of general land uses, including mining, agricultural, recreational, low, medium, and high density residential, commercial, and industrial, and specific land uses adjacent to the surface waters for which the recategorization is proposed; and

3. The frequency of occasions when there is no natural flow in the surface water, and the $7Q_{10}$ and annual mean flow values for the surface water;

4. Fish or benthic macroinvertebrate collection data and an Index of Biotic Integrity or Macroinvertebrate Bioassessment Index calculation from a waterbody if criteria [that criterion] specified in Section 1(3)(c) of this administrative regulation are [is] utilized.

Section 3. [List of] Surface Water Categories. [(1)] Surface waters categorized for antidegradation [nondegradation] purposes are listed in the following tables. The county column indicates the county in which the mouth or outlet of the surface water is located.

[(2) Surface waters not specifically listed in this section are categorized as use-protected.]

[LIST OF] SURFACE WATERS CATEGORIZED AS		
Stream	Zone	County
	Mile 49.2	
Underground River System	Within Mammoth Cave National Park Boundary	Edmonson/Hart/Barren
Big South Fork of Cumberland River	River Mile 55.2 to River Mile 45.0	McCreary

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[LIST OF] SURFACE WATERS CATEGORIZED AS EXCEPTIONAL WATERS [WATERBODIES WHOSE QUALITY EXCEEDS THAT NECESSARY TO SUPPORT PROPAGATION OF FISH, SHELLFISH, AND WILDLIFE AND RECREATION IN AND ON THE WATER]		
Stream	Zone	County
LITTLE SANDY RIVER BASIN		
Arabs Fork*	Source to [confluence with] Clay Fork	Carter
Big Caney Creek*	Source to Grayson Lake	Elliott
Big Sinking Creek*	Source to River Mile 10.7	Carter
Laurel Creek*	Source to River Mile 7.6	Elliott
LICKING RIVER BASIN		
Blackwater Creek	River Mile 11.4 to River Mile 3.8	Morgan
Bucket Branch*	Source to [confluence with] North Fork of Licking River	Morgan
Devils Fork*	Source to [confluence with] North Fork of Licking River	Morgan
Licking River	River Mile 165.0 to River Mile 154.5	Bath/Rowan
North Fork of Licking River*	Source to River Mile 13.0	Morgan
KENTUCKY RIVER BASIN		
Buffalo Creek*	River Mile 12.8 to River Mile 0.8	Owsley
Cavanaugh Creek	River mile 5.3 to South Fork of Station Camp Creek	Jackson
Clear Creek*	Source to River Mile 4.1	Woodford
Clemons Fork*	Source to Buckhorn Creek	Breathitt
Coles Fork*	Source to Buckhorn Creek	Breathitt
Drennon Creek*	River Mile 11.9 to River Mile 10.5	Henry
East Fork of Indian Creek*	Source to West Fork of Indian Creek	Menifee
Elisha Creek*	Source to River Mile 0.95	Leslie
Gladie Creek*	Source to Red River	Menifee
Goose Creek	Laurel Creek to Red Bird River	Clay
Hardwick Creek	Little Hardwick Creek to Red River	Powell
Indian Creek*	River Mile 4.7 to River Mile 0.55	Carroll
Line Fork	River Mile 27.5 to River Mile 17.3	Letcher
Lulbegrud Creek	Falls Branch to Red River	Clark/Powell
Middle Fork of Kentucky River	Upper Twin Creek to North Fork of Kentucky River	Lee
Middle Fork of Kentucky River	Greasy Creek to Buckhorn Reservoir backwaters	Leslie
Musselman Creek*	River Mile 8.4 to River Mile 2.6	Grant
Red Bird River	Big Creek to Goose Creek	Clay
Right Fork of Buffalo Creek*	Source to Buffalo Creek	Owsley
South Fork of Kentucky River	Sexton Creek to River Mile 11.3	Owsley
South Fork of Red River	Sand Lick Fork to Middle Fork of Red River	Powell
South Fork of Station Camp Creek*	Source to River Mile 5.3	Jackson
Station Camp Creek*	River Mile 22.3 to River Mile 19.0	Estill
Sturgeon Creek*	Source to River Mile 4.0	Lee
Sugar Creek*	Source to River Mile 0.8	Leslie
Wolfpen Creek*	Source to Red River	Menifee

SALT RIVER BASIN		
Salt Lick Creek*	Source to River Mile 5.3	Marion
Wilson Creek*	Source to River Mile 12.2	Bullitt
GREEN RIVER BASIN		
Beaverdam Creek*	Source to River Mile 7.6	Edmonson
Caney Fork*	Source to River Mile 0.85	Barren
Falling Timber Creek*	River Mile 16.0 to River Mile 11.5	Metcalfe
Gasper River*	Source to River Mile 32.3	Logan
Goose Creek*	Source to River Mile 5.6	Casey
Green River	River Mile 207.8 to River Mile 181.7	Edmonson
Lick Creek*	Source to River Mile 5.3	Simpson
Otter Creek*	Source, including East and Middle Fork, to River Mile 1.75	Larue
Peter Creek*	River Mile 18.05 to River Mile 13.05	Barren
Russell Creek*	Source to River Mile 23.8 [60.5]	Adair
Trammel Fork*	River Mile 30.15 (Kentucky-Tennessee State Line) to River Mile 19.4	Allen
LOWER CUMBERLAND RIVER BASIN		
West Fork of Red River*	River Mile 26.5 to River Mile 16.3	Christian
Whipporwill Creek*	Source to Red River	Logan
TENNESSEE RIVER BASIN		
Blood River*	River Mile 15.65 (Kentucky-Tennessee State Line) to River Mile 15.1	Calloway
Panther Creek*	Source to River Mile 1.2	Calloway
Soldier Creek*	River Mile 5.3 to River Mile 2.6	Marshall
TRADEWATER RIVER BASIN		
Sandlick Creek*	Source to River Mile 3.5	Christian
Tradewater River*	Source to River Mile 126.0	Christian
OHIO RIVER BASIN (Main Stem and Minor Tributaries)		
Yellowbank Creek*	Source to River Mile 4.4	Breckinridge
LAKES AND RESERVOIRS		
Metropolis	Entire Lake	McCracken
Swan	Entire Lake	Ballard
MISSISSIPPI RIVER BASIN (Main Stem and Minor Tributaries)		
Murphy's Pond	Entire Pond and Preserve Area	Hickman
UPPER CUMBERLAND RIVER BASIN		
Bad Branch*	Source to [confluence with] Poor Fork of Cumberland River	Letcher
Bark Camp Creek*	Source to River Mile 2.6	Whitley
Buck Creek*	River Mile 62.6 to River Mile 28.9	Pulaski
Cane Creek*	Source to River Mile 7.0	Laurel
Cumberland River	River Mile 574.6 to River Mile 558.5 (Headwaters of Lake Cumberland)	McCreary/Whitley
Eagle Creek*	Source to River Mile 3.0	McCreary
Horse Lick Creek*	Source to River Mile 12.3	Jackson
Little South Fork of Cumberland River	River Mile 35.6 to River Mile 4.1	Wayne
Marsh Creek*	Source to River Mile 12.6	McCreary
Martins Fork of Cumberland River	River Mile 31.3 to River Mile 27.4	Harlan
Rock Creek	Tennessee-Kentucky State Line (River Mile 21.9) to White Oak Creek	McCreary
Rockcastle River	River Mile 24.4 to River Mile 8.5	Laurel/Pulaski

South Fork of Dog Slaughter Creek*	Source to Dog Slaughter Creek	Whitley
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*Waterbodies in the cabinet's reference reach network

Section 4. Incorporation by Reference. (1) The following material is incorporated by reference:

(a) "Methods for Assessing Biological Integrity of Surface Water, October 1993." Kentucky Division of Water, Natural Resources and Environmental Protection Cabinet;

(b) "A Macroinvertebrate Bioassessment Index for Streams of the Interior Plateau Ecoregion in Kentucky, June 1999." Kentucky Division of Water, Natural Resources and Environmental Protection Cabinet;

(c) "Interim Economic Guidance for Water Quality Standards Workbook (EPA, March 1995)" Publication EPA-823-B-95-002, U.S. Environmental Protection Agency, Office of Water, Washington, D.C. [Document Incorporated by Reference. The subject matter of this administrative regulation relating to biological assessments shall be governed by the document, "Methods for Assessing Biological Integrity of Surface Water", Kentucky Division of Water, Natural Resources and Environmental Protection Cabinet, October 1993, which is hereby incorporated by reference.]

(2) This material may be inspected, copied, or obtained [The document is available for inspection and copying, subject to copyright laws, during normal business hours of 8 a.m. to 4:30 p.m., excluding state holidays,] at the Division of Water, 14 Reilly Road, Frankfort, Kentucky, Monday through Friday, 8 a.m. to 4:30 p.m.

JAMES E. BICKFORD, Secretary

BARBARA A. FOSTER, General Counsel

APPROVED BY AGENCY: September 9, 1999

FILED WITH LRC: September 9, 1999 at 11 a.m.

REGULATORY IMPACT ANALYSIS

Contact person: Jack A. Wilson

(1) Type and number of entities affected: This amended administrative regulation implements the antidegradation policy of amended 401 KAR 5:029 by establishing procedures to control water pollution in waters affected by that policy. No additional surface waters are categorized as outstanding national resource waters and 27 surface waters are categorized as exceptional waters. Individuals, businesses, organizations, and governments that will have new or expanded wastewater discharges into streams categorized as exceptional waters are affected by stricter discharge limits. Fewer than 10 sites have permits to discharge to these categorized waterbodies. Effluent limitations are set for carbonaceous biochemical oxygen demand, ammonia-nitrogen, residual chlorine, suspended solids, phosphorus, dissolved oxygen, fecal coliform bacteria, and a chronic whole effluent toxicity limit unless an acute whole effluent toxicity limit is more stringent. All other waste discharges will have limits twice as stringent as discharges into waters classified as use protected with some exceptions. This amended administrative regulation will affect new or expanded mining operations in watersheds of these newly categorized waters. This amended administrative regulation also applies indirectly to persons served by domestic water supplies, agricultural water users, recreational enthusiasts, and the tourism industry.

(2) Direct and indirect costs or savings: The stricter permit limits imposed on new or expanded point source dischargers into waterbodies categorized as exceptional waters could result in additional treatment outlays, training costs, and operational changes. New or expanded dischargers may incur costs of alternatives and pollution prevention analyses. Direct and indirect savings will be realized through reduced drinking water treatment costs, maintenance of good agricultural water, maintenance of fisheries, and healthy recreational waters. Of important note is that this requirement already exists in state and federal law. Therefore, the amended administrative regulation does not create additional obligations for dischargers. Any cost a discharger would incur would already be required under existing federal and state law. This amended administrative regulation sets forth specific implementation procedures to comply with already existing antidegradation requirements.

(a) Effect on the cost of living and employment in the geographical area in which the administrative regulation will be implemented, to the extent available from the public comments received: Several comments received from the public referred to a study by Stephen M. Meyer, Professor in Political Science, Massachusetts Institute of Technology, entitled *Environmentalism and Economic Prosperity: Testing the Environmental Impact Hypothesis*, October 5, 1992. This study compared the relative strengths of environmental programs in the fifty states with economic performance measured in terms of gross state product and economic growth, total employment, construction employment, manufacturing labor, and overall labor productivity. The study found that "...average employment growth among the environmentally strong states was about 45% better than that of the environmentally weak states." It concluded that "...states with stronger environmental policies consistently out-performed the weaker environmental states on all the economic measures." Further, "...states with stronger environmental policies did not experience weaker gains in economic growth between the 1970s and 1980s. Here again, it was the states with strong environmental policies that showed the greater inter-decade improvement in economic performance."

(b) Effect on the cost of doing business in the geographical area in which the administrative regulation will be implemented, to the extent available from the public comments received: No known or expected impacts. No specific comments received.

(c) Effect on the compliance, reporting, and paperwork requirements, to the extent available from the public comments received, including factors increasing or decreasing costs (note any effects upon competition) for the:

1. First year following implementation: No known or expected impacts. No specific comments received.

2. Second and subsequent years: No known or expected impacts. No specific comments received.

(3) Effects on the promulgating administrative body:

(a) Direct and indirect costs or savings: 3 categorizations of waters for antidegradation purposes are included: outstanding national resource waters, exceptional waters, and use protected waters. The Division of Water may perform field assessments of surface waters having potential for categorization and will make determinations based on its assessments and petitions submitted by the public. The cabinet's antidegradation implementation policy will involve additional reviews of socioeconomic demonstration. The permitting process itself will not change significantly.

1. First year: None

2. Continuing costs or savings: None

3. Additional factors increasing or decreasing costs: Socioeconomic demonstration must be reviewed and determinations made as to their adequacy. Costs may increase if the division's findings are contested.

(b) Reporting and paperwork requirements: Implementing the antidegradation policy will involve minimal internal paperwork.

(4) Assessment of anticipated effect on state and local revenues: Some localities may be affected because of the presence of exceptional waters, causing tax-generating businesses to locate elsewhere. However, protection of these waterbodies may have a positive influence on revenues derived from water-based tourism. Again, it must be noted, this is already required under federal and state law so the promulgation of this amended administrative regulation which sets forth a procedure to implement the law itself will not impact revenue more than it is already impacted by the existing federal and state regulation.

(5) Source of revenue to be used for implementation and enforcement of administrative regulation: The source of revenue will be the General Fund and federal funds, as appropriated by the Kentucky General Assembly.

(6) To the extent available from the public comments received, economic impact, including effects of economic activities arising from administrative regulation, on:

(a) Geographical area in which administration regulation will be implemented: No known or expected impacts. No specific comments received.

(b) Kentucky: Comments received: "The cabinet's nondegradation rule must balance the need to protect the waters of Kentucky

against the separate but critical need to promote economic growth and development in Northern Kentucky and the rest of the state. The proposed revisions should not result in substantial delays or cause significant, unnecessary costs for local governments in Northern Kentucky as they strive to improve existing and extend new sewer service."

(7) Assessment of alternative methods; reasons why alternatives were rejected: This new amended administrative regulation implements Kentucky's antidegradation policy, which is contained in 401 KAR 5:029. Implementation of an antidegradation policy is required by the Clean Water Act and 40 CFR 131.12. Therefore, no alternatives were considered. The domestic discharge limits for new or expanded discharges to exceptional waters are stringent but technologically achievable.

(8) Assessment of expected benefits of the administrative regulation: This amended administrative regulation establishes 3 surface water categories: outstanding national resource waters, exceptional waters, and use protected waters. By categorizing certain streams as exceptional waters, this amended administrative regulation will lessen the degree of degradation of those waters. The quality of aquatic-based recreation (e.g., fishing, swimming, skiing, and boating) will be preserved. Drinking water treatment costs will be contained because of controlled pollutant amounts. Aquatic biodiversity will be maintained.

(a) Identify effects on public health and environmental welfare of the geographical area in which implemented and on Kentucky: This amended administrative regulation reduces the amount of permissible point source pollutant loading into exceptional waters. Aquatic recreation, such as swimming, wading, skiing, and boating, depends on the maintenance of clean, safe water. Categorizing these waters protects rare aquatic species and the rich biodiversity of plants, fish, and macroinvertebrates.

(b) State whether a detrimental effect on environment and public health would result if not implemented: There would be a detrimental effect on the environment if this amended administrative regulation is not implemented.

(c) If detrimental effect would result, explain detrimental effect: Failure to implement this amended administrative regulation would allow the degradation of those streams and lakes identified as outstanding national resource waters and exceptional waters. Although these waters would meet designated uses, any increment of water quality greater than that necessary to support propagation of fish, shellfish, wildlife, and recreation in and on the water could be lost. Analysis of alternatives will assure that no feasible environmentally beneficial alternatives exist.

(9) Identify any statute, administrative regulation or government policy which may be in conflict, overlapping, or duplication: No statutes, administrative regulations or government policies are in conflict, overlap, or duplicate this amended administrative regulation.

(a) Necessity of proposed administrative regulation if in conflict: The administrative regulation is not in conflict.

(b) If in conflict, was effort made to harmonize the proposed administration regulation with conflicting provisions: The administrative regulation is not in conflict.

(10) Any additional information or comments: State water quality standards are required by federal law to be reviewed for possible changes at least every three years. The U.S. Environmental Protection Agency disapproved: 1) excluding carcinogenic pollutants from twice as stringent limits in discharges to exceptional waters; and 2) the number of waters that would undergo an antidegradation review. The cabinet is addressing these issues in these proposed revisions by applying twice as stringent limits to carcinogenic substances for discharges to exceptional waters, and by requiring a socioeconomic demonstration for new and expanded discharges to exceptional and use protected waters.

(11) TIERING: Is tiering applied? No. The amended administrative regulation affects all discharges into surface waters of the Commonwealth, irrespective of ownership, capacity, processes, or treatment used.

FEDERAL MANDATE ANALYSIS COMPARISON

1. Federal statute or regulation constituting the federal mandate.

There is no federal statute or regulation mandating that Kentucky implement a water pollution control program. For Kentucky to maintain its delegation over the NPDES permit program, however, the Clean Water Act requires that Kentucky review its water quality standards every three years and comply with the programmatic requirements of 40 CFR Part 131, including the requirement for implementing an antidegradation policy. The federal regulations require the adoption of an antidegradation policy for delegated states. The U.S. Environmental Protection Agency does provide guidance to the states, but individual decisions concerning the states water quality programs are left to the states.

2. State compliance standards. 401 KAR 5:002, 5:026, 5:029, 5:030, and 5:031, the water quality standards regulations.

3. Minimum or uniform standards contained in the federal mandate. The Clean Water Act requires designated uses, criteria, standards and antidegradation policies in water quality standards.

4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate? No

5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements. There is no stricter standard or additional or different responsibilities or requirements.

FISCAL NOTE ON LOCAL GOVERNMENT

1. Does this administrative regulation relate to any aspect of a local government, including any service provided by that local government? Yes

2. State what unit, part or division of local government this administrative regulation will affect. This amended administrative regulation may affect the wastewater treatment divisions of local government if they will have new or expanded discharges into outstanding national resource waters or exceptional waters.

3. State the aspect or service of local government to which this administrative regulation relates. This amended administrative regulation relates to local governments' waste water treatment service.

4. Estimate the effect of this administrative regulation on the expenditures and revenues of a local government for the first full year the administrative regulation is to be in effect. If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-): Cannot be determined.

Expenditures (+/-): Cannot be determined.

Other explanation: Waste water treatment costs may increase for those local governments that will have new or expanded discharges into exceptional waters. However, local governments withdrawing drinking water from these waters may have lower treatment costs, because these waters should have lower pollutant loads. The basic requirement already exists in federal and state law. The cost associated with this amended administrative regulation will be procedural in nature.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET Department for Environmental Protection Division of Water (Amended After Hearing)

401 KAR 5:031. Surface water standards.

RELATES TO: KRS 146.200 to 146.360, 146.410 to 146.990, 224.01-100, 224.01-400, 224.16-050, 224.16-070, 224.40, 224.43, 224.46, 224.50, 224.60, 224.70, 224.71, 224.73 [Chapter 224]

STATUTORY AUTHORITY: KRS 146.200 to 146.360, 146.410 to 146.990, 224.10-100, 224.16-050, 224.16-060, 224.70-100, 224.70-110, 40 CFR Part 131, 16 USC 1271 et seq., 1531 et seq., 33 USC 1311, 1313, 1314, 1341

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to develop and conduct a comprehensive program for the man-